

## EAST Search History

| Ref # | Hits | Search Query   | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|------|--|--|------------------|---------|------------------|
| L3    | 62   | (spac\$3 electric\$4 protrusion seal\$3 lateral).cm. | US-PGPUB   | AND              | ON      | 2007/01/12 10:33 |
| L4    | 6    | (spac\$3 electric\$4 protrusion seal\$3 ink).cm.     | US-PGPUB   | AND              | ON      | 2007/01/12 10:34 |
| L5    | 263  | (spac\$3 electric\$4 protrusion seal\$3).cm.         | US-PGPUB   | AND              | ON      | 2007/01/12 10:34 |
| L6    | 8    | 5 and "347"/\$.ccds.                                 | US-PGPUB   | AND              | ON      | 2007/01/12 10:51 |
| L7    | 127  | "347"/50,68.ccls. and @ad>="20050406"                | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/01/12 10:54 |

## EAST Search History

| Ref # | Hits  | Search Query  | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|-------|---|---|------------------|---------|------------------|
| L3    | 62    | (spac\$3 electric\$4 protrusion seal\$3 lateral).clm.   | US-PGPUB  | AND              | ON      | 2007/01/12 10:33 |
| L4    | 6     | (spac\$3 electric\$4 protrusion seal\$3 ink).clm.   | US-PGPUB  | AND              | ON      | 2007/01/12 10:34 |
| L5    | 263   | (spac\$3 electric\$4 protrusion seal\$3).clm.   | US-PGPUB  | AND              | ON      | 2007/01/12 10:34 |
| L6    | 8     | 5 and "347"/\$.cccls.   | US-PGPUB  | AND              | ON      | 2007/01/12 10:35 |
| S1    | 2     | "20040109046"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:25 |
| S2    | 4813  | 347/20,50,54,68-72.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:25 |
| S3    | 31343 | (fpc (flexible adj printed adj circuit) wir\$3) with (protrusion protrud\$3 (draw adj out) (jut adj out))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:27 |
| S4    | 63    | (fpc (flexible adj printed adj circuit) wir\$3) with (protrusion protrud\$3 (draw adj out) (jut adj out)) same ((electric\$4 with connect) with (power supply)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:28 |
| S5    | 0     | S2 and S4   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:28 |
| S6    | 158   | (fpc (flexible adj printed adj circuit) wir\$3) same (protrusion protrud\$3 (draw adj out) (jut adj out)) same ((electric\$4 with connect) with (power supply)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:28 |
| S7    | 336   | (fpc (flexible adj printed adj circuit) wir\$3) same (protrusion protrud\$3 (draw adj out) (jut adj out)) same ((electric\$4 with connect) same (power supply)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/07 07:40 |
| S8    | 0     | S2 and S6   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:28 |
| S9    | 0     | S2 and S7   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:28 |
| S10   | 60992 | "347"/\$.cccls.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:29 |
| S11   | 1     | S7 and S10  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/04/06 12:29 |

## EAST Search History

|     |       |   |   |    |    |                  |
|-----|-------|---|---|----|----|------------------|
| S12 | 53    | S2 and S3   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 12:29 |
| S13 | 6     | ("4940413"   "5227812"   "5796416"   "6186613"   "6188414"   "6325488").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2005/04/06 13:00 |
| S14 | 2     | jp-2000108344-\$.did.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:30 |
| S15 | 2     | jp-2000094673-\$.did.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:28 |
| S16 | 82937 | (ink liquid fluid) same (drip\$3 leak\$3) with (adhesive glu\$3 seal\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:36 |
| S17 | 187   | S2 and S16  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:38 |
| S18 | 936   | (ink liquid fluid) same (drip\$3 leak\$3) with (adhesive glu\$3 seal\$3) with (electrode (electric\$2 adj connection))".              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:33 |
| S19 | 936   | (ink liquid fluid) same (drip\$3 leak\$3) with (adhesive glu\$3 seal\$3) with (electrode (electric\$2 adj connection))                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:42 |
| S20 | 4     | S2 and S19  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:33 |
| S21 | 96    | S2 and S16 and piezoelectric  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:36 |
| S22 | 2024  | (ink liquid fluid) same (drip\$3 leak\$3) same (adhesive glu\$3 seal\$3) with (electrode (electric\$2 adj connection)) same electr\$4 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:45 |
| S23 | 13    | S2 and S22  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:42 |

## EAST Search History

|     |         |  |   |    |    |                  |
|-----|---------|--|---|----|----|------------------|
| S24 | 2024    | (ink liquid fluid) same (drip\$3 leak\$3) same (adhesive glu\$3 seal\$3) with (electrode (electric\$2 adj connection)) with electr\$4        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:45 |
| S25 | 4941    | (ink liquid fluid) same (drip\$3 leak\$3) same (adhesive glu\$3 seal\$3) with electr\$4  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:45 |
| S26 | 15      | S2 and S25   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/06 13:45 |
| S27 | 0       | ("6802596").URPN.  | USPAT   | OR | ON | 2005/04/06 13:55 |
| S28 | 4810    | 347/20,50,54,68-72.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 07:40 |
| S29 | 2997244 | (protrusion protrud\$3 hole through) with (wire connect\$3 fpc cable)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 07:41 |
| S30 | 162278  | (protrusion protrud\$3 hole through) with (wire connect\$3 fpc cable) with (seal\$3 glue bond\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 07:42 |
| S31 | 286     | S28 and S30  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 07:41 |
| S32 | 79      | (protrusion protrud\$3 hole through) with (wire connect\$3 fpc cable) with (seal\$3 glue bond\$3) with (print\$2head)                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 07:45 |
| S33 | 87      | (protrusion protrud\$3 hole through) with (wire connect\$3 fpc cable flexible) with (seal\$3 glue bond\$3) with (print\$3head)               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 07:46 |
| S34 | 87      | (protrusion protrud\$3 hole through) with (wire connect\$3 fpc cable flexible) with (seal\$3 glue bond\$3 relief) with (print\$3head)        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 07:47 |
| S35 | 88      | (protrusion protrud\$3 hole through) with (wire connect\$3 fpc cable flexible) with (seal\$3 glue bond\$3 stress strain) with (print\$3head) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 08:05 |
| S36 | 6734    | (protrusion protrud\$3 through) with (seal\$3 glu\$3 bond\$3) with (electrical same (wire fpc circuit))                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 08:07 |

## EAST Search History

|     |       |   |   |    |    |                  |
|-----|-------|---|---|----|----|------------------|
| S37 | 4810  | 347/20,50,54,68-72.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 09:11 |
| S38 | 6734  | (protrusion protrud\$3 through) with (seal\$3 glu\$3 bond\$3) with (electrical same (wire fpc circuit)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 09:11 |
| S39 | 20    | S37 and S38   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 09:18 |
| S40 | 263   | (electric\$2 near\$5 connection) with (internal external) with piezoelectric                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/30 08:45 |
| S41 | 24    | S37 and S40   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/04/07 09:19 |
| S42 | 5230  | 347/20,50,54,68-72.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 13:44 |
| S43 | 5778  | 347/20,42,50,54,68-73.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 13:44 |
| S44 | 16971 | pot\$3 with (glue adhesive plastic)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 13:47 |
| S45 | 34    | S43 and S44   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 13:45 |
| S46 | 1173  | (pot\$3 with (glue adhesive plastic)) same electric\$3  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 13:50 |
| S47 | 64360 | "347"/\$.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 13:47 |
| S48 | 8     | S46 and S47   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 13:48 |

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|     |        |   |   |    |    |                  |
|-----|--------|---|---|----|----|------------------|
| S49 | 4      | ((pot\$3 with (glue adhesive plastic)) same electric\$3) and (ink with jet)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 14:10 |
| S50 | 193    | (pot\$3 with (glue adhesive plastic)) same (electric\$3 with circuit)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 14:03 |
| S51 | 0      | S43 and S50   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 14:04 |
| S52 | 193    | S44 and S50   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 14:09 |
| S53 | 1      | S47 and S50   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/15 14:04 |
| S54 | 16     | (US-20020030715-\$ or US-20040032468-\$ or US-20040109046-\$).did. or<br>(US-4412232-\$ or US-4766448-\$ or US-5227812-\$ or US-6188414-\$ or<br>US-6341845-\$ or US-6450617-\$ or US-6543880-\$ or US-6637870-\$ or<br>US-6676247-\$ or US-6799833-\$ or US-6802596-\$ or US-6834937-\$).did. or<br>(GB-2020026-\$).did. | US-PGPUB;<br>USPAT;<br>EPO  | OR | ON | 2005/12/29 09:30 |
| S55 | 10     | S54 and piezoelectric   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/29 09:31 |
| S56 | 559    | 347/50.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/29 09:38 |
| S57 | 271950 | ((wir\$3 fpc lead) with (between through)) same (layer substrate board)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/29 09:39 |
| S58 | 135    | S56 and S57   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/29 09:40 |
| S59 | 72     | S58 and (glue adhesive)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/29 09:41 |
| S60 | 193079 | S59 and pzt piezoelectric   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/29 09:41 |

## EAST Search History

|     |        |   |   |    |    |                  |
|-----|--------|---|---|----|----|------------------|
| S61 | 24     | S59 and (pzt piezoelectric)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/29 09:41 |
| S62 | 559    | 347/50.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/30 08:44 |
| S63 | 338274 | ((electric\$2 near4 connection) wir\$3 fpc cable lead) with (through between protrude)) same (layer substrate board)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/30 08:47 |
| S64 | 204    | S62 and S63   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/30 08:47 |
| S65 | 67     | S64 and piezoelectric   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/30 08:47 |
| S66 | 8      | ("4695854"   "4698644"   "4703333"   "4768266"   "5105209"   "5515086"   "5684520"   "5880763").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2005/12/30 10:34 |
| S67 | 8      | ("4695854"   "4698644"   "4703333"   "4768266"   "5105209"   "5515086"   "5684520"   "5880763").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2005/12/30 09:01 |
| S68 | 2      | "3107630".pn.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2005/12/30 10:35 |
| S69 | 2      | "3211088".pn.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2005/12/30 10:35 |
| S70 | 2      | "20040109046" "4703333".pn.   | US-PGPUB;<br>USPAT  | OR | ON | 2006/04/13 10:38 |
| S71 | 596    | 347/50.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/26 09:19 |
| S72 | 25     | (US-20020030715-\$ or US-20040109046-\$ or US-20040032468-\$).did. or (US-6802596-\$ or US-6799833-\$ or US-6188414-\$ or US-5227812-\$ or US-6637870-\$ or US-6450617-\$ or US-6676247-\$ or US-4766448-\$ or US-6834937-\$ or US-6543880-\$ or US-6341845-\$ or US-4412232-\$ or US-6070965-\$ or US-5992976-\$ or US-4698644-\$ or US-4768266-\$ or US-4703333-\$ or US-5442386-\$ or US-6641254-\$ or US-7004565-\$).did. or (GB-2020026-\$ or EP-593175-\$).did. | US-PGPUB;<br>USPAT;<br>EPO  | OR | ON | 2006/07/26 10:37 |
| S73 | 11     | ("20020012029"   "20030156166"   "20040041885"   "5402159"   "5548894"   "5581288"   "6027208"   "6109736"   "6431691"   "6550897"   "6652062").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/26 10:39 |
| S74 | 1      | "20040109046"   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/26 11:14 |
| S75 | 0      | jp-2002278971-\$.did.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/26 10:45 |
| S76 | 0      | jp-02278971-\$.did.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/26 10:46 |

## EAST Search History

|     |   |                   |   |    |    |                  |
|-----|---|-------------------|---|----|----|------------------|
| S77 | 0 | "2002278971"      | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/26 10:46 |
| S78 | 2 | "20040109046"     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/26 11:14 |
| S79 | 1 | 2004-380831.NRAN. | DERWENT   | OR | ON | 2006/07/26 11:14 |